REMARKS

Reconsideration of the above-identified Application is respectfully requested. Claims 1-17 are in the case. Claims 1, 7, 10, 12 and 13 have been amended. The Specification has been amended. New application papers are submitted herewith.

Regarding the requirement of new application papers with lines double spaced on good quality paper, such new application papers are submitted herewith. It is therefore respectfully requested that this requirement be deemed met.

Regarding the objection to the disclosure, the changes to the paragraph starting on page 5, line 14, kindly suggested by the Examiner have been made by amendment herein. It is therefore respectfully submitted that this objection has been overcome. Wherefore reconsideration and withdrawal of this objection are respectfully requested.

Regarding the objection to Claim 13, the changes to this claim kindly suggested by the Examiner have been made by amendment herein. It is therefore respectfully submitted that this objection has been overcome. Wherefore reconsideration and withdrawal of this objection are respectfully requested.

Regarding the rejection of Claims 1, 7 and 12 under 35 U.S.C. § 112, second paragraph, these claims have been amended to overcome the rejection. Specifically, Claims 1 and 12 have been amended to clarify which unit is doing the respective steps, with the exception of the step of storing, in each device, an identification number. This element is already clear in that the storing is in each device. As to what unit may actually perform such storing, this limitation is unnecessary and is not relevant to the claimed subject matter, which is a method for logging in a device, not a method for assigning to the device its identification number. Such identification could be done many ways, for example in a factory by hard wiring or programming, by a user of the device, etc. However, it does need to be stored in each device in order for the claimed method to be

performed, and that is recited in these claims. Note that this recitation is no longer presented as a claim element, but is instead now recited as part of the preamble of the claim, to render its status in a clearer and more appropriate way.

As to Claim 7, antecedent basis has been provided for the limitations in question.

Accordingly, it is respectfully submitted that this rejection has been overcome and that these claims are definite and in proper form. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claims 1, 4-9 and 12-16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Satula in view of the patent to Bonn, this rejection is respectfully traversed. Independent Claim 1 recites a method of logging in a device to a network of devices, each device having an identification number unique to that device stored therein, the identification number having a number of bits, each having a bit position, and the network having an a controller, including the steps of broadcasting from the controller a pattern of requests to all devices, each request representing a request to each device to acknowledge whether *a given bit position* of its identification number has a given binary value, sending acknowledgements from the device logging in to the controller, and traversing a binary tree by the controller in response to the acknowledgements, thereby determining the identification number of the device logging in. In this way, it is unnecessary to provide unique identifiers to the network prior to adding a device to the network. The network "learns" the identifier by means of the login process without having to actually address the device, and without having to employ signal blocking schemes.

The patent to Satula apparently relates to a soft addressing scheme for a control network, in which addresses are assigned by an I/O bus manager to I/O devices arranged in clusters. Unlike the invention as set forth in Claim 1, Satula's arrangement calls out for complete addresses, and then cancels duplicate addresses and assigns new addresses as required. It does not assume that a device logging in has an identification number already stored in it,

and does not perform a bit-by-bit request/acknowledgement procedure to ascertain that identification number. Further, it was admitted in the above-identified Office Action that Satula fails to disclose traversing a binary tree in response to the acknowledgements.

The patent to Bonn fails to cure the deficiencies of the patent to Satula. This patent apparently relates to a software facility for automatically identifying subnetworks in a network. Like the arrangement in Satula, Bonn's arrangement calls out for complete addresses, in Bonn's case addresses of hosts, and then constructs a subnet tree of all possible subnets that might exist in the network. Bonn's arrangement then traverses this tree, testing subnets that are visited in this traversal, to determine whether they constitute actual subnets in use in the network. Thus, Bonn does not perform a bit-by-bit request/acknowledgement procedure to ascertain that identification number, and then traverse a binary tree in response to the acknowledgements to determine the identification number of a device logging in.

The other art of record is even less relevant.

Therefore, for the above reasons, it is respectfully submitted that Claim 1 is neither anticipated nor rendered obvious over Satula, Bonn, or any of the art of record, whether considered alone or in any combination, and so Claim 1 is allowable over these references. Claims 4-9 depend, either directly or indirectly from Claim 1, and so are allowable as well for the same reasons, as well as for the additional limitations found therein.

Independent Claim 12 recites a method of logging in a device to a network of devices, each device having an identification number unique to that device stored therein, the identification number having a number of bits, each having a bit position, and the network having an a controller, and recites the steps of broadcasting a first request from the controller to all devices, the first request representing a request to each device to acknowledge whether the first bit position of its identification number has a zero, sending acknowledgements to the controller by the devices and receiving the acknowledgements from the devices in accordance with the following sub-steps, if an acknowledgement to

the first request is received by the controller, repeating the broadcasting step for the next bit position of the identification number, but if no acknowledgement to the first request is received by the controller, broadcasting a second request from the controller to all devices, the second request representing a request to each device to acknowledge whether the first bit of its identification number is a one, and if an acknowledgement to the second request is received, repeating the first broadcasting step for the next bit position of the identification number, and if no acknowledgement to the second request is received, ending the login process, repeating the sending and receiving sub-steps for each bit position of the identification number, and traversing a binary tree by the controller in response to the acknowledgements, thereby determining the identification number of the device. Thus, the arguments set forth above for the allowability of Claim 1 apply as well to Claim 12, and so are incorporated by reference here as if set forth in their entirety. For those reasons, it is respectfully submitted that Claim 12 is neither anticipated nor rendered obvious over Satula, Bonn, or any of the art of record, whether considered alone or in any combination, and so Claim 12 is allowable over these references.

Claim 13 recites a network controller for logging in a device to a network of devices, including processing circuitry for broadcasting a pattern of requests to all devices, each request representing a request to each device to acknowledge whether a given bit position of its identification number has a given binary value, receiving acknowledgements from the devices, and traversing a binary tree in response to the acknowledgements, thereby determining the identification number of the device. Thus, the arguments set forth above for the allowability of Claim 1 apply as well to Claim 13, and so are incorporated by reference here as if set forth in their entirety. For those reasons, it is respectfully submitted that Claim 13 is neither anticipated nor rendered obvious over Satula, Bonn, or any of the art of record, whether considered alone or in any combination, and so Claim 13 is allowable over these references. Claims 14-16 depend from Claim 13, and so are allowable as well for the same reasons, as well as for the additional limitations found therein.

Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claims 2, 3 and 17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Satula in view of the patent to Siep et al., this rejection is respectfully traversed. Claims 2 and 3 depend from Claim 1, while Claim 17 depends from Claim 13. The reasons for the allowability of Claims 1 and 13 over the patent to Satula are set forth above, and are incorporated by reference here as if set forth in their entirety. The patent to Siep et al. fails to cure the deficiencies of Satula. Siep et al. apparently relates to an active wireless network for calculators, and was cited for showing a wireless network for calculators. Like the patent to Satula, the patent to Siep et al. does not perform a bit-by-bit request/acknowledgement procedure to ascertain an identification number, and it fails to disclose traversing a binary tree in response to the acknowledgements. The other art of record is even less relevant.

For the above reasons, it is respectfully submitted that Claims 1 and 13 are neither anticipated nor rendered obvious over Satula, Siep et al., or any of the art of record, whether considered alone or in any combination, and so Claims 1 and 13 are allowable over these references. Because of their dependency from these claims, Claims 2, 3 and 17 are allowable as well for the same reasons, as well as for the additional limitations found therein. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claim 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Satula in view of the patent to Alkhatib et al., this rejection is respectfully traversed. Claim 10 depends from Claim 1. The reasons for the allowability of Claim 1 over the patent to Satula are set forth above, and are incorporated by reference here as if set forth in their entirety. The patent to Alkhatib et al. fails to cure the deficiencies of Satula. Alkhatib et al. apparently relates to a system for automatically determining a network address. Like the Satula's arrangement, the arrangement of Alkhatib et al.

transfers entire addresses, and does not perform a bit-by-bit request/acknowledgement procedure to ascertain an identification number. It also fails to disclose traversing a binary tree in response to the acknowledgements. The other art of record is even less relevant.

For the above reasons, it is respectfully submitted that Claim 1 is neither anticipated nor rendered obvious over Satula, Alkhatib et al., or any of the art of record, whether considered alone or in any combination, and so Claim 1 is allowable over these references. Because of its dependency from Claim 1, Claim 10 is allowable as well for the same reasons, as well as for the additional limitations found therein. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claim 11 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Satula in view of the patent to Beser et al., this rejection is respectfully traversed. Claim 11 depends from Claim 1. The reasons for the allowability of Claim 1 over the patent to Satula are set forth above, and are incorporated by reference here as if set forth in their entirety. The patent to Beser et al. fails to cure the deficiencies of Satula. Beser et al. apparently relates to a method for network table address maintenance, and was cited for allegedly showing ending a login process if two successive requests for of the same bit position are not acknowledged. However, like the Satula's arrangement, the arrangement of Beser et al. does not inquire relative to bit positions. Rather, it sends entire network addresses, and does not perform a bit-by-bit request/acknowledgement procedure to ascertain an identification number. It also fails to disclose traversing a binary tree in response to the acknowledgements. The other art of record is even less relevant.

For the above reasons, it is respectfully submitted that Claim 1 is neither anticipated nor rendered obvious over Satula, Beser et al., or any of the art of record, whether considered alone or in any combination, and so Claim 1 is allowable over these references. Because of its dependency from Claim 1, Claim 11 is allowable as well for the same reasons, as well as for the additional
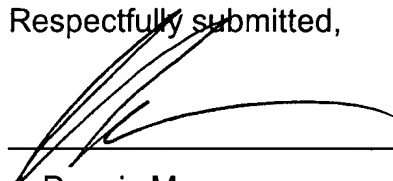
limitations found therein. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

It is respectfully submitted that the claims recite the patentably distinguishing features of the invention and that, taken together with the above remarks, the present application is now in proper form for allowance. Reconsideration of the application, as amended, and allowance of the claims are requested at an early date.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, the Applicants petition for an Extension of Time under 37 C.F.R. §1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees to the Deposit Account No. 20-0668 of Texas Instruments Incorporated.

Respectfully submitted,

_____

J. Dennis Moore
Attorney for Applicant(s)
Reg. No. 28,885

Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265
Phone: (972) 917-5646
Fax: (972) 917-4418